In the Claims:

1. (Cancelled)

2. (Cancelled)

3. (Currently amended) The composition of claim ~~1~~ 11 wherein the total number of said cation sites is 96, and y is up to 20.

4. (Currently amended) The composition of claim ~~1~~ 11 wherein the total number of said cation sites is 96 and y is up to 10.

5. (Previously amended) A composition comprising lithium (Li) and metal (M) cation exchanged zeolite wherein said cation exchanged zeolite is selected from the group consisting of Li_xM_yX zeolite, Li_xM_yLSX zeolite, wherein said metal (M) cation is silver having a valence state of +1, wherein the metal cation is in the form of dispersed clusters, further wherein x is greater than y, the sum of x + y is less than or equal to the number of cation sites of said zeolite, and y is greater than zero, and wherein the metal cation is presented in an atomic amount corresponding to up to about 20% of the cation sites, wherein the composition is cation exchanged sodium zeolite, wherein sodium is present in an atomic amount less than said silver.

6. (Original) The composition of claim 5 wherein the total number of cation sites is 96, lithium is present in an atomic amount greater than 70 and less than 96 atomic units, silver is present in an atomic amount greater than 0 and up to about 20 atomic units, and sodium is present in an atomic amount less than silver.

7. (Currently Amended) The composition of claim ~~1~~ 5 wherein said clusters consist of partially metallic silver.

8. (Original) The composition of claim 7 wherein said clusters consist of n atoms of metal (M) collectively having a charge represented by the value n-1.

9. (Original) The composition of claim 8 wherein said clusters consist of 3 atoms of metal (M) collectively having a +2 charge, or 6 atoms of metal (M) collectively having a +5 charge.

10. (Currently Amended) The composition of claim ~~1~~ 11 wherein said clusters consist of ~~one selected from the group consisting of~~ partially metallic copper ~~and partially metallic silver~~.

11. (Re-presented) A composition comprising lithium (Li) and metal (M) cation exchanged zeolite wherein said cation exchanged zeolite is selected from the group consisting of Li_xM_yX zeolite, Li_xM_yLSX zeolite, wherein said metal (M) cation ~~The composition of claim 1 wherein M~~ is copper and has a valence state of +1, wherein the metal cation is in the form of dispersed clusters, further wherein x is greater than y, the sum of x + y is less than or equal to the number of cation sites of said zeolite, and y is greater than zero, wherein the metal cation is presented in an atomic amount corresponding to up to about 20% of the cation sites, and wherein the composition is adapted to selectively adsorb a compound at about ambient room temperature conditions.

12. (Original) The composition of claim 11 which is cation exchanged sodium zeolite where sodium is present in an atomic amount less than said copper.

13. (Original) The composition of claim 12 wherein the total number of cation sites is 96, lithium is present in an atomic amount greater than 70 and less than 96 atomic units, copper is present in an atomic amount greater than 0 and up to about 20 atomic units, and sodium is present in an atomic amount less than copper.

14. (Cancelled)

15. (Cancelled)

16. (Cancelled)

17. (Cancelled)

18. (Re-presented) A process for preparing a composition comprising lithium and metal (M) cation exchanged zeolite where M is in the form of dispersed clusters associated with a plurality of said cation exchanged sites, said method comprising the steps of:

a. providing a sodium zeolite selected from the group consisting of Na-X zeolite and Na-LSX zeolite;

b. exchanging a plurality of Na^{1+} ions with Li^{1+} ions;

c. exchanging a portion of said Li^{1+} ions with M^{1+} ions, wherein the M^{1+} is presented in an atomic amount corresponding to up to about 10% of the cation sites;

d. heat treating the M^{1+} exchanged zeolite of step (c) at a temperature of greater than about 400°C in a non-oxidizing atmosphere to reduce a portion of said M^{1+} ions to M^0, thereby forming said dispersed clusters;

wherein the composition is adapted to selectively adsorb a compound at about ambient room temperature conditions;

and ~~The process of claim 16~~ wherein M^{1+} is Cu^{+1} and step (c) is conducted by first exchanging Li^{1+} ions with Cu^{2+} ions and then reducing said Cu^{2+} ions to Cu^{1+} ions.

19. (Currently Amended) The process of claim ~~16~~ 18 wherein in step (d) the non-oxidizing atmosphere is an inert atmosphere or a vacuum.

20. (New) The composition of claim 5 wherein the total number of said cation sites is 96, and y is up to 20.

21. (New) The composition of claim 5 wherein the total number of said cation sites is 96 and y is up to 10.

22. (New) The composition of claim 10 wherein said clusters consist of n atoms of metal (M) collectively having a charge represented by the value n-1.

23. (New) The composition of claim 10 wherein said clusters consist of 3 atoms of metal (M) collectively having a +2 charge, or 6 atoms of metal (M) collectively having a +5 charge.